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A NEW RODENT FROM THE GALAPAGOS ISLANDS

BY

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A NEW RODENT FROM THE GALAPAGOS ISLANDS

BY WILFRED H. OSGOOD

The Crane Pacific Expedition of Field Museum, which is now working in the East Indies, made a brief stop in the Galapagos Islands on its outward voyage in the early part of the present year. At this time, largely through the energy of Mr. Frank Wonder, taxidermist of the expedition, an excellent series of rodents was obtained including three species, one of which proves to be quite unknown and so distinct from the others as to be of considerable interest. A discovery of this sort is somewhat surprising in view of the number of parties that have touched at the islands in recent years. It is also fortunate that it is made now, for the spread of house rats makes the extinction of such restricted types increasingly probable.

In 1835, when Darwin visited the Galapagos Islands, he found a native mouse inhabiting Chatham Island and supposed it to be the only indigenous mammal of the islands. This species was described as *Mus galapagoensis* by Waterhouse (Zool. Voy. Beagle, Pt. II, Mammalia, p. 65, pls. XXXIII-XXXIV, 1839) who adds Darwin's notation as follows: "This mouse or rat is abundant in Chatham Island. I could not find it on any other island of the group." From this it is evident that Darwin made an effort to obtain further rodents, but his narrative seems to indicate that he did not spend any time on Narborough and Indefatigable islands, the principal ones from which specimens have been taken subsequently.

Since Darwin's time, no one appears to have collected any mammals on Chatham Island and the species discovered by him has not been taken again with certainty; but in 1892 a closely allied or possibly identical species was described as *Oryzomys bauri* from Barrington Island by J. A. Allen (Bull. Am. Nat. Mus. Hist., 4, p. 48, 1892). Further specimens of this species were obtained by Heller and Snodgrass in 1898 and are now preserved in the collection of Stanford University.

In 1899, a very distinct species, *Oryzomys indefessus* from Indefatigable Island, was described by Thomas (Ann. & Mag. Nat. Hist., (7), 4, p. 280, Oct. 1899). Following this in 1904, a well-marked species allied to *indefessus* was described as *Nesoryzomys narboroughi* by Heller (Proc. Calif. Acad. Sci., (8), 3, p. 242, 1904). The genus *Nesoryzomys* was at this time erected by Heller to include *indefessus* and *narboroughi*.

The species described below, for which the name *darwini* seems appropriate, brings the total for the islands to at least four and possibly five distinct forms. These divide into three groups (1) *galapagoensis* and *bauri*, which differ from each other only slightly or not at all and which belong to the typical section of the genus *Oryzomys*; (2) *indefessus* and *narboroughi*, which belong to an aberrant section of the oryzomyine series and are individually well distinguished in color but sufficiently similar otherwise so that they may have been derived the one from the other in comparatively recent times; and (3) *darwini*, which has general relationship to *indefessus* and *narboroughi* but differs from them much more than they differ from each other. It lives side by side with *indefessus* on Indefatigable Island, indicating a distinction of long standing.

With the addition of *N. darwini* to the other forms above-mentioned, the rodents of the islands take on considerably more importance than formerly and will doubtless need serious consideration in speculation regarding the derivation of the insular fauna. Until thorough study of mainland forms is made, however, no satisfactory conclusions are to be expected. While the oryzomyine rodents are widely distributed and greatly varied in South America, they are also highly developed in Central America, and no competent study of the whole group has yet been undertaken. When such a study is made, it may be possible to determine something more than the general affinity of the insular and continental forms. At present, it cannot be affirmed even that the nominal genus *Nesoryzomys* is confined to the Galapagos, for at least in some of its characters it is closely paralleled by certain forms of the mainland. However, the number and diversity of the island rodents may perhaps be taken as indicating that their existence on the islands is not an accidental matter and the view is somewhat substantiated that the present land area has been reduced from former larger proportions. Furthermore, it seems quite certain that before the introduction of house rats the native rodents were more generally distributed throughout the different islands of the group than at present.

Nesoryzomys darwini sp. nov.

Type from Academy Bay, Indefatigable Island, Galapagos Islands. No. 30830 Field Museum of Natural History. Adult female. Collected Jan. 12, 1929 by Frank C. Wonder. Orig. No. 82.

Diagnosis.—Differs from *N. indefessus* and *N. narboroughi* in decidedly smaller size and in bright fulvous coloration which extends to the entire underparts; skull slender and without sharp ridges or angles.

Color.—Predominating body color Cinnamon Rufous of Ridgway; upper parts with a plentiful mixture of blackish producing a general effect of Mars Brown or darker; the blackish uniformly distributed but not producing the common oryzomyine appearance of fine lines; sides but slightly lighter than back; underparts clear Cinnamon Rufous throughout, the plumbeous basal color almost wholly concealed; ears thinly haired, brownish without, rufescent or creamy within, a tuft of clear rufescent at the upper bases; feet dull whitish tinged with rufescent proximally; tail dusky above, dull whitish below.

Skull.—General form slender and elongate; zygomata compressed anteriorly; nasals very long, their posterior endings about even with lacrymals; interorbital region somewhat less constricted than in *N. indefessus*, but with rounded edges; braincase smoothly rounded; interparietal small; palate extended posteriorly beyond molars and with a single minute foramen between last molar and interpterygoid fossa; teeth of good size and usual oryzomyine pattern.

Measurements.—Adult male and female (type), respectively: Total length 222, 204; tail vertebrae 89, 91; hind foot 27, 25. Skull of type: Greatest length 30; basilar length 22.3; zygomatic breadth 14.6; interorbital constriction 4.3; breadth of braincase 12.2; nasals 12.6; interparietal 8x2; postpalatal length 11.3; diastema 7.8; upper toothrow 4.8.

Remarks.—Three specimens of this new form were collected by Mr. Wonder at Academy Bay January 12, and one more at Conway Bay January 16. On the same dates, twelve examples of *N. indefessus* were taken at Academy Bay and thirteen at Conway Bay. This and the fact that *darwini* has heretofore eluded capture indicate that it is much less numerous than *indefessus*.

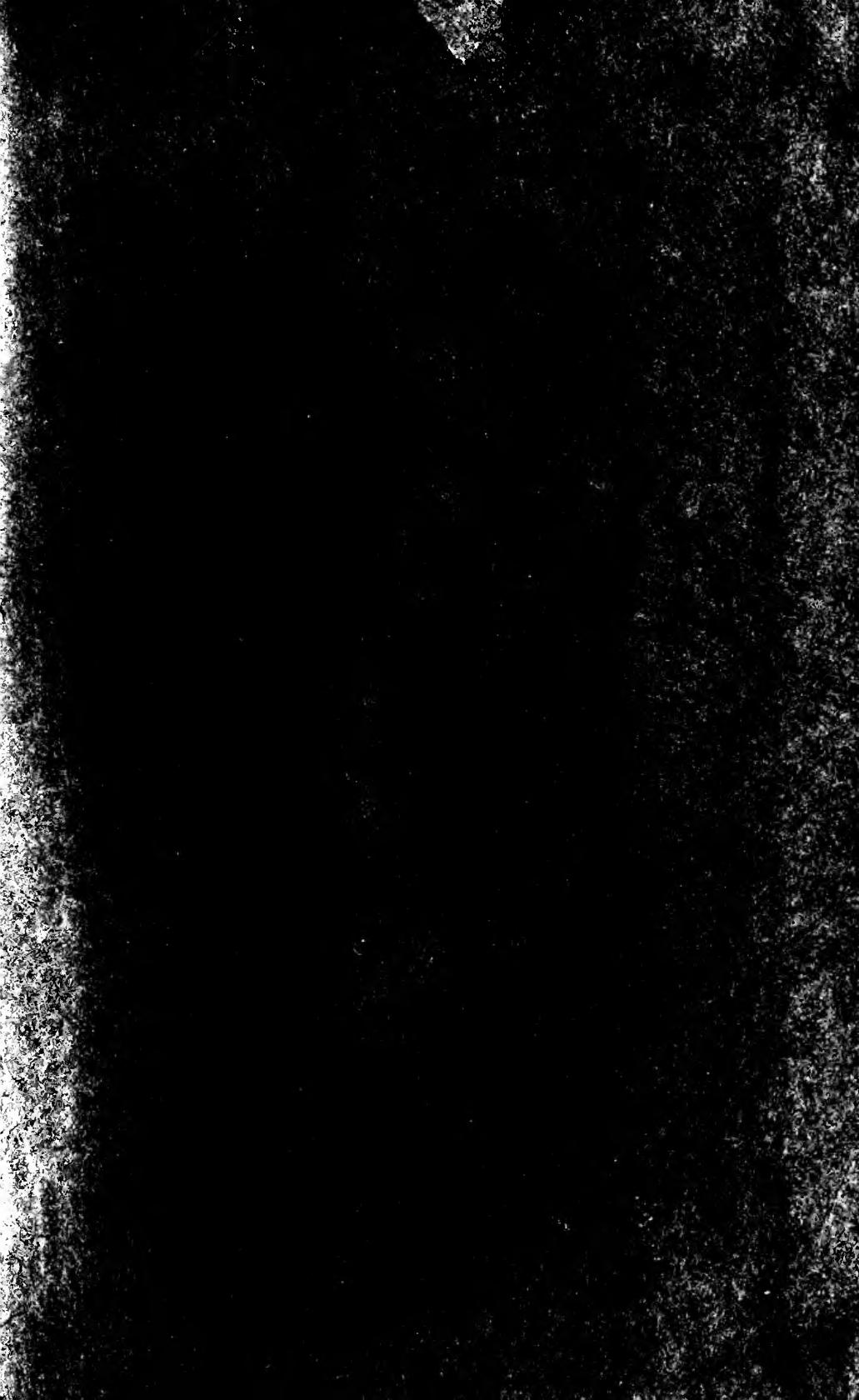
It is readily recognizable by its small size and rufescent coloration. It possesses all the general characters of *indefessus* and *narrowbroughi* such as may be of generic or subgeneric significance. Externally, these characters include soft, dense pelage, relatively short tail, broad hind feet, reduced plantar tubercles, and markedly granulated soles. The skulls are characterized by elongate form, constricted interorbital region without marked ridges, and by a rather wide interpterygoid fossa between which and the last molars the "lateral pits" so characteristic of typical *Oryzomys* are reduced in size and depth producing an appearance of the back of the palate seldom seen in mainland forms.

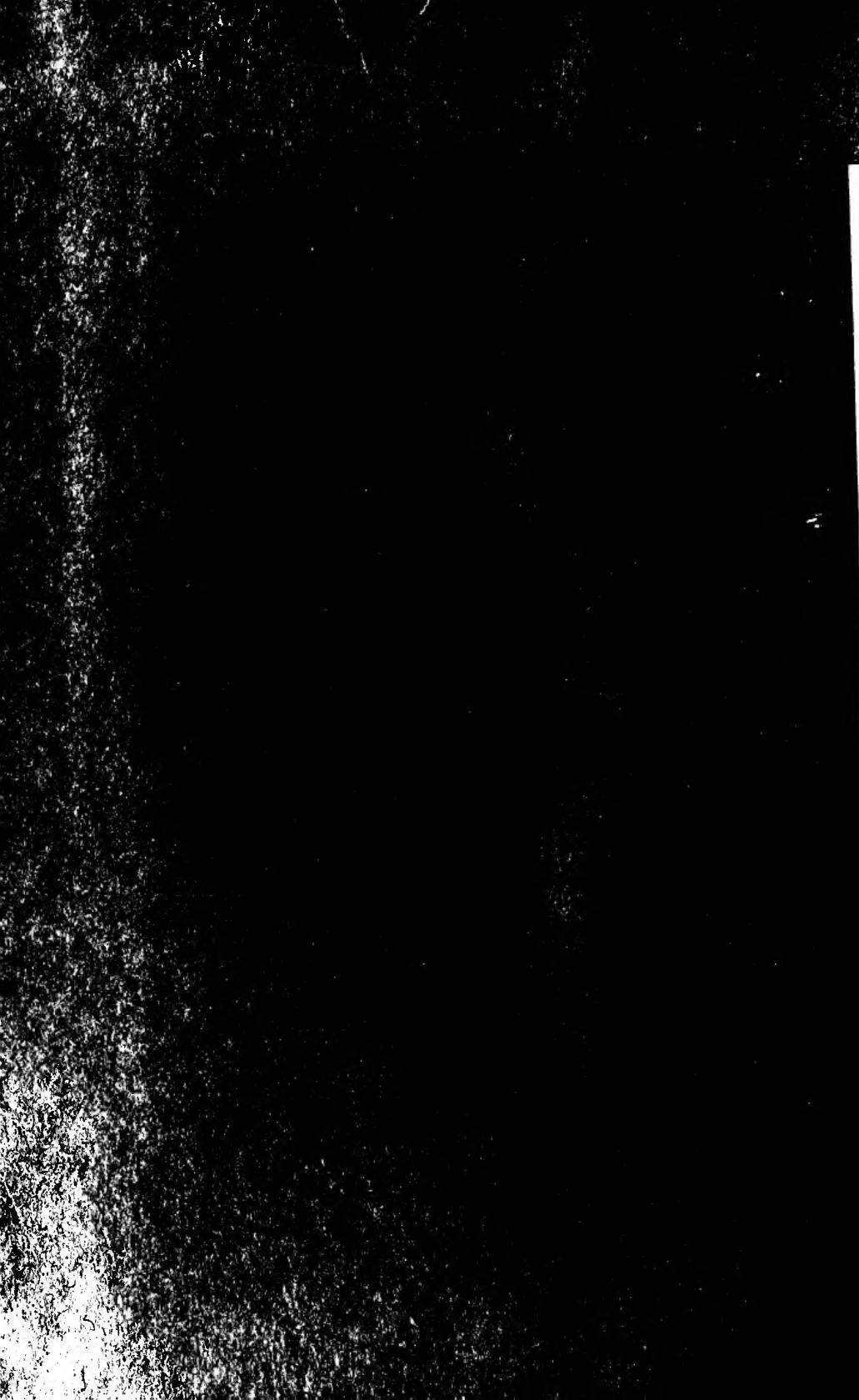
Taken collectively, these characters may be of generic importance and, at least for the present, the genus *Nesoryzomys* may be considered as consisting only of the three species inhabiting the Galapagos Islands. Nevertheless, it should not be forgotten that present day generic distinctions among Neotropical rodents are on a basis which future investigation may not substantiate. In other words, it is more conservative to speak of the rodent fauna of the Galapagos as consisting of four peculiar species than as of one peculiar genus.

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